

NOTE

*Amblyomma quadricavum* (Schulze) (new combination), and  
*Amblyomma arianae* Keirans and Garris, a new junior  
synonym of *Amblyomma quadricavum* (Acari: Ixodidae)

*Aponomma quadricavum* was described by Schulze (1941, *Zoologischer Anzeiger* 133: 227) based on a female collected from *Epicrates striatus* in Haiti, July 1936, P. Thumb leg. In the title of the paper, Schulze stated that the new *Aponomma* had remnants of eyes. Later (pg. 227), he went on to state (translation), "Two narrow, oval, lighter spots near the lateral margin certainly represent remnants of eyes." Despite this, Schulze thought the tick belonged in the genus *Aponomma* because of the small size of the body, the breadth of the scutum and the shortness of the legs. He admitted (pg. 228) that "Whoever wishes to place the species in *Amblyomma*, may safely do so. . . ."

Santos Dias (1958a, *Memórias e Estudos do Museu Zoológico da Universidade de Coimbra* (250): 15p; 1958b, *Memórias e Estudos do Museu Zoológico da Universidade de Coimbra* (253): 32p.) examined 2 females (although Schulze only mentioned a holotype female) of the type material in the Hamburg Museum and considered them to be true specimens of *Aponomma quadricavum*. Santos Dias (1993, *Estudos, Ensaios e Documentos* (157): 204p.) continued to hold that view in his recent revision of the genus *Aponomma*. Černý (1966, *Poeyana Series A* (26): 10p.) agreed with Santos Dias and described the male of *Aponomma quadricavum*. However, Morel (1967, *Acarologia* 9: 341-352) was of the opinion that the species might actually be *Amblyomma albopictum*. Kaufman (1972, *A revision of the genus Aponomma Neumann, 1899 (Acarina: Ixodidae)*. Unpubl. Ph.D. Thesis, University of Maryland. 389p.) listed it as an uncertain species of *Aponomma*, and Anderson et al.

(1981, *Journal of Medical Entomology* 18: 123-125), considered it to be a valid *Aponomma* species and described the larva of *A. quadricavum*.

We have examined the holotype of *Aponomma quadricavum* and three additional collections (total = 7 females, 4 larvae) in the U.S. National Tick Collection (RML 101848, 105559, 112143) and conclude that these ticks are not a species of *Aponomma*, but belong in the genus *Amblyomma*. Thus, *Aponomma quadricavum* Schulze, 1941 = *Amblyomma quadricavum* (Schulze 1941) **new combination**.

We also conclude that *Amblyomma arianae* Keirans and Garris, 1986 (*J. Med. Entomol.* 23: 622), types of which are in the U.S. National Tick Collection (RML 115846, 116106, 117471), should be relegated to a junior subjective synonym of *Amblyomma quadricavum* (Schulze 1941) **new synonymy**.

*Amblyomma quadricavum* is known from the islands of Haiti, Cuba, Puerto Rico, and Jamaica (RML 101848, unpubl.) and has been reported from the colubrid snake species, *Alsophis cantherigerus* and *A. portoricensis*, and the boid species, *Epicrates angulifer*, *E. striatus*, and *E. subfavis* (RML 101848, unpubl.).

As mentioned in the original description of its junior synonym, *Amblyomma arianae*, *Amblyomma quadricavum* is unlike most New World snake-feeding *Amblyomma* species which are large, brightly ornamented ticks with rectangular basis capituli, well developed eyes, and two spurs on coxae II-IV. *Amblyomma quadricavum* is a small *Aponomma*-like tick, with no ornamentation, poorly developed eyes, a subtriangular capitulum, and a single spur on

coxae II-IV. This latter condition is also true of what is now the only known species of *Aponomma* in the Western Hemisphere, *Aponomma elaphense* Price, 1959, a parasite of the trans-Pecos rat snake, *Elaphe subocularis* found in New Mexico, the Big Bend area of Texas, and northern Mexico. In unpublished research by the junior author, *Ap. elaphense* and *Am. quadricavum* appear to form a fairly well supported lin-

eage that makes up the sister lineage to the higher *Metastratiata*.

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